

26-7-95

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Dear Gian-Carlo and Renata,
Jim Cushing has passed on to
me your comments on the paper
of Patrick ~~and~~ La Riviere and myself.

I now think I understand your argument
much more clearly, and recognize that
you have made no logical blunder.

Setting aside the issues about determinism
versus indeterminism in evaluating the relevant
counterfactuals, the crucial result one
can all accept is your formula (4) ~~and~~

$$* (OM \wedge Compl) \supset \neg(OM-LOC) \vee \neg(ER-LOC)$$

I completely agree that you ^{can} only deduce
 $\neg(ER-LOC)$ if we assume $(OM-LOC)$
and that under the assumption of $\neg(OM-LOC)$
one cannot deduce $\neg(ER-LOC)$.

The one point that I still do not
understand is why * helps with peaceful
coexistence of quantum mechanics and special
relativity. $\neg(OM-LOC)$ seems just as much at
P.T.O.

odds with relativity as $\neg (ER-LOC)$.

They both exhibit space-like parameter dependence, and the fact that $\neg (ER-LOC)$ is referred to by Einstein as "spooky" does not seem to amount to a convincing argument for preferring $\neg (QM-LOC)$ to $\neg (ER-LOC)$.

This is what led to our confusion in trying to reconstruct your argument as denying the validity of

$$(QM \wedge \text{Compl}) \supset \neg (L-LOC)$$

We felt this denial must be required to make sense of your peaceful coexistence claims.

But I now see this was not what you were trying to do, but only to stress the non-deducibility of $\neg (ER-LOC)$ simpliciter.

In order to push the peaceful coexistence claim ourselves, we tried to undermine * by identifying (admittedly controversially) an additional suppressed assumption of determinism.

I will now re-draft our paper, to see if

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there is still something of interest
and clarification to be salvaged,
now that we are all agreed
on the logical points.

I have been very sorry to
miss the Bielefeld Conference.

My back is improving slowly
but is still very sore and painful.

With very best wishes

Richard
